

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/897,351DATE: 07/31/98  
TIME: 15:13:12

INPUT SET: S27790.raw

This Raw Listing contains the General  
Information Section and those Sequences

*in first 5 pages*

ENTERED

## SEQUENCE LISTING

1  
2  
3 (1) General Information:  
4 (i) APPLICANT: NEBOJSA JANJIC, LARRY GOLD, PAUL G. SCHMIDT, CHANDRA VARGESE,  
5 (ii) TITLE OF THE INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR  
6 (VEGF) NUCLEIC ACID LIGAND COMPLEXES  
7 (iii) NUMBER OF SEQUENCES: 88  
8 (iv) CORRESPONDENCE ADDRESS:  
9 (A) ADDRESSEE: Swanson and Bratschun, L.L.C.  
10 (B) STREET: 8400 East Prentice Avenue, Suite #200  
11 (C) CITY: Denver  
12 (D) STATE: Colorado  
13 (E) COUNTRY: USA  
14 (F) ZIP: 80111  
15  
16 (v) COMPUTER READABLE FORM:  
17 (A) MEDIUM TYPE: Diskette, 3.5 inch, 1.4 Mb storage  
18 (B) COMPUTER: IBM compatible  
19 (C) OPERATING SYSTEM: MS-DOS  
20 (D) SOFTWARE: WordPerfect 6.1  
21  
22 (vi) CURRENT APPLICATION DATA:  
23 (A) APPLICATION NUMBER: 08/897,351  
24 (B) FILING DATE: 21 JULY 1997  
25 (C) CLASSIFICATION:  
26  
27 (vii) PRIOR APPLICATION DATA:  
28 (A) APPLICATION NUMBER: 08/870,930  
29 (B) FILING DATE: 6 JUNE 1997  
30  
31 (viii) ATTORNEY/AGENT INFORMATION:  
32 (A) NAME: Barry J. Swanson  
33 (B) REGISTRATION NUMBER: 33,215  
34 (C) REFERENCE/DOCKET NUMBER: NEX61CIP  
35  
36  
37 (ix) TELECOMMUNICATION INFORMATION:  
38 (A) TELEPHONE: (303) 793-3333  
39 (B) TELEFAX: (303) 793-3433  
40

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 78

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

TAATACGACT CACTATAGGG AGGACGATGC GGNNNNNNNNN NNNNNNNNNN 50  
NNNNNNNNNN NNCAGACGAC TCGCCCGA

78

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 88

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

TAATACGACT CACTATAGGG AGGACGATGC GGNNNNNNNNN NNNNNNNNNN 50  
NNNNNNNNNN NNNNNNNNNN NNCAGACGAC TCGCCCGA

88

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

TCGGGCGAGT CGTCTG

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 32

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

TAATACGACT CACTATAGGG AGGACGATGC GG

32

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28

(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: RNA  
(ix) FEATURE:  
(D) OTHER INFORMATION: Nucleotides at positions 1, 6-7,  
10, 14, 16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F) modified  
(ix) FEATURE:  
(D) OTHER INFORMATION: Nucleotides at positions 2-3,  
8-9, 11-13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe)  
modified  
(ix) FEATURE:  
(D) OTHER INFORMATION: T in position 28 is a 3'-3'-linked  
deoxythymidine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:  
CGGAAUCAGU GAAUGCUUAU ACAUCCGT

28

(2) INFORMATION FOR SEQ ID NO: 6:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 28  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: RNA  
(ix) FEATURE:  
(D) OTHER INFORMATION: Nucleotides at positions 1,  
6-7, 10, 14, 16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F)  
modified  
(ix) FEATURE:  
(D) OTHER INFORMATION: Nucleotides at positions 2-3,  
8-9, 11-13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe)  
modified  
(ix) FEATURE:  
(D) OTHER INFORMATION: T in position 28 is a 3'-3'-linked  
deoxythymidine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:  
CGGAAUCAGU GAAUGCUUAU ACAUCCGT

28

(2) INFORMATION FOR SEQ ID NO: 7:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 28  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: RNA  
(ix) FEATURE:  
(D) OTHER INFORMATION: Nucleotides at positions 1,  
6-7, 10, 14, 16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F)  
modified  
(ix) FEATURE:  
(D) OTHER INFORMATION: Nucleotides at positions 2-3,  
8-9, 11-13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe)  
modified  
(ix) FEATURE:  
(D) OTHER INFORMATION: T in position 28 is a 3'-3'-linked

deoxythymidine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:  
CGGAAUCAGU GAAUGCUUAU ACAUCCGT

28

(2) INFORMATION FOR SEQ ID NO: 8:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION: Nucleotides at positions 1,  
6-7, 10, 14, 16-18, 20, 22, and 24-26 are 2'-fluoro  
(2'-F) modified

(ix) FEATURE:

(D) OTHER INFORMATION: Nucleotides at positions  
2-3, 8-9, 11-13, 15, 19, 21, 23, and 27 are 2'-OMethyl  
(2'-OMe) modified

(ix) FEATURE:

(D) OTHER INFORMATION: T in position 28 is a 3'-3'-linked  
deoxythymidine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:  
CGGAAUCAGU GAAUGCUUAU ACAUCCGT

28

(2) INFORMATION FOR SEQ ID NO: 9:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION: Nucleotides at positions 1,  
6-7, 10, 14, 16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F)  
modified

(ix) FEATURE:

(D) OTHER INFORMATION: Nucleotides at positions 2-3,  
8-9, 11-13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe)  
modified

(ix) FEATURE:

(D) OTHER INFORMATION: T in position 28 is a 3'-3'-linked  
deoxythymidine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:  
CGGAAUCAGU GAAUGCUUAU ACAUCCGT

28

(2) INFORMATION FOR SEQ ID NO: 10:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 61

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION: All pyrimidines are 2'-fluoro  
(2'-F) modified

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:  
GGGAGGACGA UGCGGNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNCAGAC 50  
GACUCGCCCCG A

61

(2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 71

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION: All pyrimidines are 2'-fluoro  
(2'-F) modified

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:  
GGGAGGACGA UGCGGNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN 50  
NNNNNCAGAC GACUCGCCCCG A

71

(2) INFORMATION FOR SEQ ID NO: 12:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 61

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION: All pyrimidines are 2'-fluoro  
(2'-F) modified

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:  
GGGAGGACGA UGCGGAAGAA UUGGUCAUCG UCGUCUCCGC CUCCCCAGAC 50  
GACUCGCCCCG A

61

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 61

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: RNA

(ix) FEATURE:

(D) OTHER INFORMATION: All pyrimidines are 2'-fluoro  
(2'-F) modified

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:  
GGGAGGACGA UGCGGAUAC GGAAGAAUUG GAUACAU AUG CUCGUCAGAC 50  
GACUCGCCCCG A

61

(2) INFORMATION FOR SEQ ID NO: 14:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 61

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: RNA  
(ix) FEATURE:  
(D) OTHER INFORMATION: All pyrimidines are 2'-fluoro  
(2'-F) modified

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:  
GGGAGGACGA UGCGGGAUAA CAGAAGAAUU GGUGAACAAAC GUGGUCAGAC 50  
GACUCGCCCCG A

61

(2) INFORMATION FOR SEQ ID NO: 15:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 61  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: RNA  
(ix) FEATURE:  
(D) OTHER INFORMATION: All pyrimidines are 2'-fluoro  
(2'-F) modified

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:  
GGGAGGACGA UGCGGAUGAU CGCGUAGGAA GUAUUGGAAG GCCCUCAGAC 50  
GACUCGCCCCG A

61

(2) INFORMATION FOR SEQ ID NO: 16:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 61  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: RNA  
(ix) FEATURE:  
(D) OTHER INFORMATION: All pyrimidines are 2'-fluoro  
(2'-F) modified

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:  
GGGAGGACGA UGCGGCACUU UAGAAGAAUU GAAUUUCCCG CUGGUCAGAC 50  
GACUCGCCCCG A

61

(2) INFORMATION FOR SEQ ID NO: 17:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 61  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: RNA  
(ix) FEATURE:  
(D) OTHER INFORMATION: All pyrimidines are 2'-fluoro  
(2'-F) modified

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:  
GGGAGGACGA UGCGGUAGGA AGAAUUGGAA GCGCAUUUUC CUCGYCAGAC 50  
GACUCGCCCCG A

61

(2) INFORMATION FOR SEQ ID NO: 18:  
(i) SEQUENCE CHARACTERISTICS: